

in length or for leaders which are not straight, the ratio of stack area to leader area should be greater than 70 per cent in order to offset the

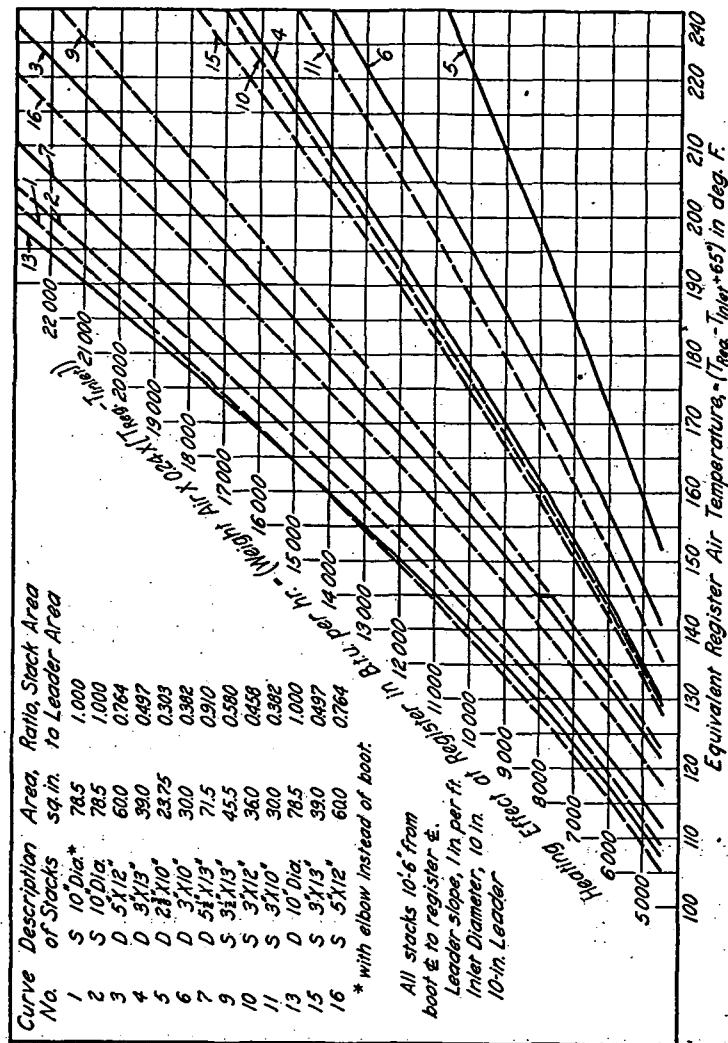


FIG. 4. HEATING EFFECT AT REGISTERS FOR VARIOUS STACKS WITH 10-INCH LEADER

greater temperature losses (Fig. 2) in the longer leader. In gravity circulating systems, this stack to leader area ratio is a very important consideration. Specific data for a great variety of cases are presented in Figs. 4 and 5 and the designer should check his stack to leader com-

binations with the nearest comparable case as shown in these figures. Any second floor stack supplying heat to a room whose heat loss is 9000

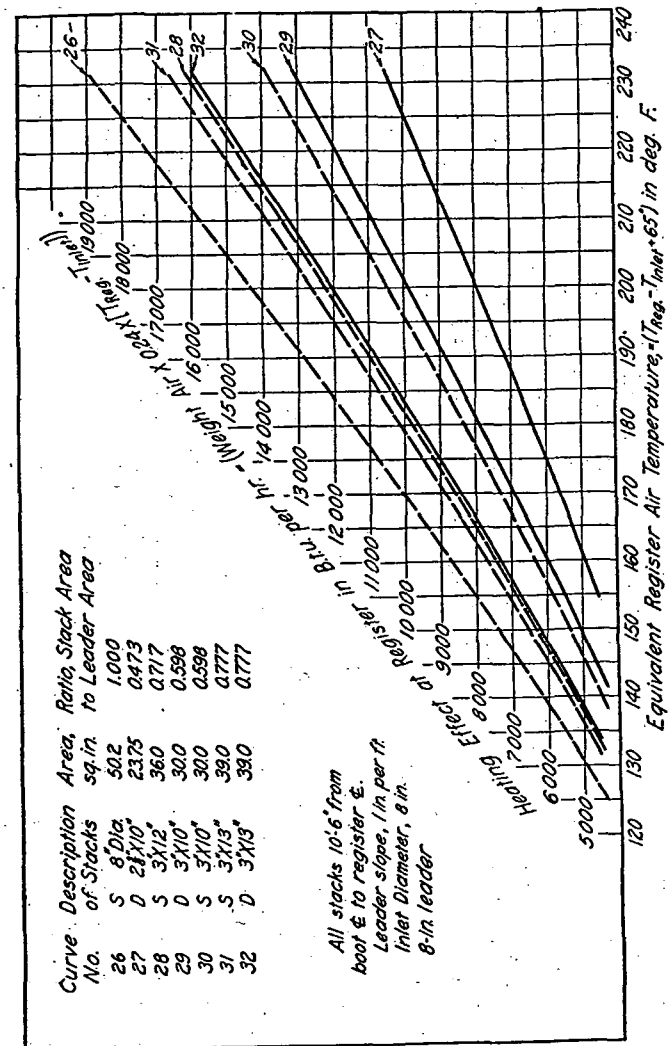


FIG. 5. HEATING EFFECT AT REGISTERS FOR VARIOUS STACKS WITH 8-INCH LEADER

B.t.u. or above (see Figs. 4 and 5 which show that high temperatures are necessary if rooms of more than 9000 B.t.u. requirement are heated by stacks in 4-in. studding), should be run within 6-in. studded walls or should have multiple stacks. Stack sections, wherever possible, should